

and might compare it with the formulas of other species. But, after all, we have here a mere mathematical abstraction, a symbol for an amount or law of force, which can be turned into conceptions, only by imagining (supposing this possible) the force in the course of its evolution of concrete realities, according to the law of development and laws of variations embraced within it.

XLVII.—*Supplement to a Catalogue of British Spiders, including remarks on their Structure, Functions, Economy, and Systematic Arrangement.* By JOHN BLACKWALL, F.L.S.

[Continued from vol. xiv. p. 33.]

Tribe OCTONOCULINA.

Family MYGALIDÆ.

Genus *Atypus*, Latr.

Atypus Sulzeri.

To the remarks on this species given in the catalogue (Ann. and Mag. Nat. Hist. 2nd Series, vol. vii. p. 257) add the following particulars. Since the instances of the capture of *Atypus Sulzeri*, recorded by Dr. Leach, several females have been procured by the Rev. Hamlet Clark from the neighbourhood of Carlisle; Mr. R. H. Meade also has received specimens of it from Mr. Newman, which were found in lanes near Hastings in the autumn of 1855; and Mr. O. P. Cambridge took an adult male early in January 1857, from a rabbit-earth in Dorsetshire, which Mr. Meade afforded me an opportunity of inspecting.

Family LYCOSIDÆ.

Genus *Lycosa*, Latr.

After *Lycosa rapax* in the catalogue (Ann. and Mag. Nat. Hist. 2nd Series, vol. vii. p. 258) add

Lycosa herbigrada.

Lycosa herbigrada, Blackw. Ann. and Mag. Nat. Hist. 2nd Series, vol. xx. p. 285.

Two adult and two immature females of this *Lycosa* were forwarded to me in Wales, in December 1856, by Mr. R. H. Meade. The two former were discovered by Mr. O. P. Cambridge under a stone, near Pennsylvania Castle, in the Isle of

Portland, on the 29th of September 1854; and the two latter were captured in July 1854, in Morden Park, near Bloxworth House, Dorsetshire, by the same gentleman.

After *Lycosa piratica* in the catalogue (Ann. and Mag. Nat. Hist. 2nd Series, vol. vii. p. 397) add

Lycosa piscatoria.

Lycosa (Potamia) piscatoria, Koch, Die Arachn. B. xv. p. 6. tab. 506. figs. 1417-1419.

Mr. R. H. Meade took adult males and females of this species, which is closely allied to *Lycosa piratica*, in the last week of June 1856, in a swampy piece of ground in Buckinghamshire, and transmitted them to me for inspection.

Family SALTICIDÆ.

Genus *Salticus*, Latr.

After *Salticus Jenynsii* in the supplement to the catalogue (Ann. and Mag. Nat. Hist. 2nd Series, vol. xiv. p. 29) add

Salticus Blackwallii.

Salticus Blackwallii, Clark, Ann. and Mag. Nat. Hist. 2nd Series, vol. xvi. p. 329.

This fine species was discovered by the Rev. Hamlet Clark in September 1855, on a gate near the sea-shore, at Southport in Lancashire.

Family THOMISIDÆ.

Genus *Thomisus*, Walck.

After *Thomisus erraticus* in the catalogue (Ann. and Mag. Nat. Hist. 2nd Series, vol. vii. p. 449) add

Thomisus sabulosus.

Thomisus sabulosus, Hahn, Die Arachn. B. i. p. 28. tab. 8. fig. 24.
Xysticus sabulosus, Koch, Die Arachn. B. xii. p. 64. tab. 411. figs. 999, 1000.

M. Walckenaer has placed this spider among the synonyma of *Thomisus cristatus*, from which it differs in size and in the design formed by the distribution of its colours; and on referring to M. Koch's 'Uebers. des Arachn. Syst.' erstes Heft, p. 25, it will be seen that *Thomisus sabulosus* had been confounded with *Thomisus lanio* (*Xysticus lanio*, Koch) by that arachnologist, an error which he afterwards corrected in treating on the species in the twelfth volume of 'Die Arachniden,' p. 66.

Four immature females were taken near Blandford in Dorsetshire, by Mr. O. P. Cambridge, and were forwarded to me, in December 1856, by Mr. R. H. Meade.

Genus *Philodromus*, Walck.

After *Philodromus dispar* in the catalogue (Ann. and Mag. Nat. Hist. 2nd Series, vol. vii. p. 451) add

Philodromus pallidus.

Philodromus pallidus, Walck. Hist. Nat. des Insect. Apt. t. i. p. 554.
Artamus griseus, Koch, Die Arachn. B. xii. p. 81. tab. 415. figs. 1013, 1014.

On the 8th of June 1856, I received a living adult female of this species from Mr. R. H. Meade, which had been taken on the trunk of an ash-tree in Kent a few days previously. This female, about the middle of June, fabricated in the box in which it was confined a very slight cocoon of white silk, measuring $\frac{3}{8}$ ths of an inch in diameter, and deposited in it numerous spherical eggs of a pale brown colour, not adherent among themselves.

Family DRASSIDÆ.

Genus *Drassus*, Walck.

Drassus lucifugus.

To the remarks on this species given in the catalogue (Ann. and Mag. Nat. Hist. 2nd Series, vol. viii. p. 39) add the following particulars. Mr. R. H. Meade transmitted to me in December 1856 an adult female *Drassus lucifugus*, which had been taken by Mr. O. P. Cambridge, near Blandford in Dorsetshire.

Family CINIFLONIDÆ.

Genus *Ciniflo*, Blackw.

After *Ciniflo ferox* in the catalogue (Ann. and Mag. Nat. Hist. 2nd Series, vol. viii. p. 99) add

Ciniflo humilis.

Ciniflo humilis, Blackw. Ann. and Mag. Nat. Hist. 2nd Series, vol. xvi. p. 120.

This small species of *Ciniflo* was captured by Mr. R. H. Meade in Buckinghamshire, in August 1854; two specimens of adult females have also been received from the Rev. Hamlet Clark, who took them in Northamptonshire.

Family AGELENIDÆ.

Genus *Agelena*, Walck.

Agelena montana.

Subjoin the following statement to the remarks on this species recorded in the catalogue (Ann. and Mag. Nat. Hist. 2nd Series, vol. viii. p. 102). In August 1852 both sexes, in a state of maturity, were found among moss in woods on the slopes of the same mountain (Gallt y Rhyg).

Genus *Tegenaria*, Walck.

After *Tegenaria civilis* in the catalogue (Ann. and Mag. Nat. Hist. 2nd Series, vol. viii. p. 334) add

Tegenaria silvicola.

Tegenaria silvicola, Walck. Hist. Nat. des Insect. Apt. t. iv. p. 464. *Hahnia silvicola*, Koch, Die Arachn. B. xii. p. 158. tab. 432. figs. 1076, 1077.

An adult female *Tegenaria silvicola* was captured in Norfolk by the Rev. Hamlet Clark early in May 1854, and another specimen was taken by Mr. R. H. Meade in Buckinghamshire in the autumn of the same year.

Family THERIDIIDÆ.

Genus *Theridion*, Walck.

Theridion pallens.

Add the following synonym of this species to the synonyma given in the catalogue (Ann. and Mag. Nat. Hist. 2nd Series, vol. viii. p. 445).

Theridion minimum, Wider, Museum Senckenb. B. i. p. 249. taf. 17. fig. 2; Walck. Hist. Nat. des Insect. Apt. t. ii. p. 320.

In the remarks on *Theridion pallens*, expunge the words "in a small globular cocoon of white silk of a loose texture," and substitute for them the following description:—in a pyriform cocoon having several conical prominences disposed in a circle round its greatest circumference; it is composed of a tissue of fine, compact, white silk, and measures $\frac{3}{20}$ ths of an inch in length and $\frac{1}{10}$ th in diameter.

Theridion flavo-maculatum.

The following particulars relative to this species should be added to those given in the supplement to the catalogue (Ann. and Mag. Nat. Hist. 2nd Series, vol. xi. p. 118). In confirma-

tion of the opinion that the female *Theridion flavo-maculatum* described by M. Koch was immature, I subjoin the measurement of an adult discovered under a stone in a wood at Oakland on the 14th of August 1855. Length, $\frac{3}{20}$ ths of an inch; length of the cephalo-thorax, $\frac{1}{16}$; breadth, $\frac{1}{18}$; breadth of the abdomen, $\frac{1}{12}$; length of a posterior leg, $\frac{3}{16}$; length of a leg of the third pair, $\frac{3}{20}$. The length of M. Koch's specimen was only one line.

Family LINYPHIIDÆ.

Genus *Neriëne*, Blackw.

After *Neriëne vagans* in the catalogue (Ann. and Mag. Nat. Hist. 2nd Series, vol. ix. p. 21) add the following species.

Neriëne dentata.

Theridion dentatum, Wider, Museum Senckenb. B. i. p. 229. taf. 15. fig. 8.

Argus dentatus, Walck. Hist. Nat. des Insect. Apt. t. ii. p. 354.

Early in May 1854, adult males of this species, which has all the characteristics of a *Neriëne*, were taken by the Rev. Hamlet Clark in Norfolk; and in the autumn of the following year Mr. R. H. Meade captured a male near Bradford.

Neriëne affinis.

Neriëne affinis, Blackw. Ann. and Mag. Nat. Hist. 2nd Series, vol. xvi. p. 121.

Two adult males of this species were received from Mr. R. H. Meade in June 1855, one of which had been taken in the vicinity of Burton-on-Trent, and the other at Hornsea, near the east coast of Yorkshire, in the preceding year.

After *Neriëne graminicola* in the catalogue (Ann. and Mag. Nat. Hist. 2nd Series, vol. ix. p. 269) add the following species.

Neriëne cornigera.

Neriëne cornigera, Blackw. Ann. and Mag. Nat. Hist. 2nd Series, vol. xvii. p. 233.

This remarkable spider was discovered among moss growing under trees in a wood on the northern slope of Gallt y Rhyg, in the autumn of 1854.

Neriëne montana.

Neriëne montana, Blackw. Ann. and Mag. Nat. Hist. 2nd Series, vol. xvii. p. 234.

This spider, which was found on Ingleborough, a mountain in

Yorkshire, in September 1855, was received from Mr. R. H. Meade.

Genus *Walckenaëra*, Blackw.

After *Walckenaëra humilis* in the catalogue (Ann. and Mag. Nat. Hist. 2nd Series, vol. ix. p. 465) add

Walckenaëra vafra.

Walckenaëra vafra, Blackw. Ann. and Mag. Nat. Hist. 2nd Series, vol. xvii. p. 235.

Adult males of *Walckenaëra vafra* were discovered under stones in the woods about Hendre House, near Llanrwst, in October 1855.

Family EPËIRIDÆ.

Genus *Epëira*, Walck.

After *Epëira calophylla* in the supplement to the catalogue (Ann. and Mag. Nat. Hist. 2nd Series, vol. x. p. 183) add

Epëira acalypha.

Epëira acalypha, Walck. Hist. Nat. des Insect. Apt. t. ii. pp. 50 and 501.

Epëira genistæ, Hahn, Die Arachn. B. i. p. 11. tab. 3. fig. 7.

Zilla genistæ, Koch, Uebers. des Arachn. Syst. erstes Heft, p. 5.

Zilla decora, Koch, Uebers. des Arachn. Syst. erstes Heft, p. 5.

Zilla acalypha, Koch, Die Arachn. B. vi. p. 139. tab. 213. figs. 530, 531.

Seven females of this species were received from Mr. R. H. Meade, who took them from their webs, which were constructed among the twigs of gorse and other bushes growing in Buckinghamshire, in the last week of June 1856.

After *Epëira diadema* in the catalogue (Ann. and Mag. Nat. Hist. 2nd Series, vol. x. p. 188) add

Epëira angulata.

Epëira angulata, Koch, Uebers. des Arachn. Syst. erstes Heft, p. 2; Die Arachn. B. xi. p. 77. tab. 379. figs. 892-895.

Epëira cornuta, Walck. Hist. Nat. des Insect. Apt. t. ii. p. 123.

An adult female *Epëira angulata*, and an immature male which had to undergo its final change of integument, were taken near Blandford in Dorsetshire by Mr. O. P. Cambridge, and were forwarded to me in December 1856 by Mr. R. H. Meade.

The descriptions of *Epëira angulata* given by arachnologists are, in general, so brief and imperfect as to render any attempt to reconcile the perplexed synonyma of this species almost hopeless.

Epëira tubulosa.

Add the following particulars to the remarks on this species recorded in the catalogue (Ann. and Mag. Nat. Hist. 2nd Series, vol. x. p. 249) :—In December 1856 I received from Mr. R. H. Meade an adult female, which had been captured by Mr. O. P. Cambridge near Blandford in Dorsetshire.

XLVIII.—On certain Coleopterous Insects from the Cape de Verde Islands. By T. VERNON WOLLASTON, M.A., F.L.S.

THE southern position which the Cape de Verde Islands occupy, with reference to the neighbouring Atlantic groups, renders any contribution towards their fauna of peculiar interest; and it is with much pleasure, therefore, that I am enabled to offer, through the liberality of my friends John Gray, Esq., and the Rev. Hamlet Clark, a few observations on the Coleoptera which they collected at St. Vincent's, during a day's sojourn there (whilst on their passage to Rio Janeiro) in December of 1856.

Considering the excessive barrenness of this the *only* island at which the mail-steamers touch, on their outward and homeward route, and the short space of time which is allowed for the passengers to go on shore, it will not appear strange that only fifteen species were the result of the combined labours of Messrs. Gray and Clark during the day that they spent at St. Vincent's. Yet, despite the poverty of the place, in an entomological point of view, it is not difficult to gather, even from these few exponents of the Coleopterous world,—if not indeed the general nature of its insect population, at any rate the important fact, that the preponderance which the *Heteromera* possess (as might, however, be anticipated), over all the other sections of the order, in this sterile spot, is quite extraordinary. Thus, of the fifteen species alluded to, whilst as many as eight are Heteromorous, only two belong to the *Geodephaga*, and but one to each of the great divisions *Brachelytra*, *Necrophaga*, *Cordylocerata*, *Priocerata*, and *Rhynchophora*.

The two representatives of the *Geodephaga* are *Cicindela littoralis*, Fab. (an insect of Mediterranean latitudes, occurring both in the south of Europe and the north of Africa), and an *Amblystomus*, which may perhaps* be peculiar to these islands, and

* I say "perhaps," because the species which form the subject of the paper, by Erichson, above alluded to, are professedly from *Angola*. Nevertheless I am assured by Dr. Schaum of Berlin, that the collector who amassed the materials from which Erichson's memoir was compiled, stopped at the Cape de Verdes, on his passage to the African coast; and that, as